



Voluntary Gopher Tortoise Habitat Crediting System

Background:

Fire-maintained longleaf pine stands once occupied 90 million acres in the Southeast, but today have declined to roughly 3 million acres as a result of development, habitat conversion, invasive species, and fire suppression. Lack of fire on the landscape has resulted in limited habitat for a variety of species dependent upon a more open canopy and diverse herbaceous ground cover. Consequently, many of the species have experienced population declines including the gopher tortoise. Currently the gopher tortoise is federally listed as threatened under the Endangered Species Act in the western portion of its range (west of the Tombigbee River in Alabama) and the U.S. Fish & Wildlife Service (USFWS) recently received a petition to include the eastern populations. With over 80% of land in private ownership in the Southeast, the greatest potential for conservation, restoration and management of pine habitat for declining species lies in the hands of family forest owners

To address these issues, the American Forest Foundation and Longleaf Alliance are working to develop and implement a market-based habitat crediting system for the gopher tortoise and associated species on family forestlands in portions of Georgia and Alabama. The incentive-based framework will complement other efforts in the region to help preclude the need to federally list the eastern population of the gopher tortoise.

Under the program, interested family forest owners, within particular forest service areas, become eligible for habitat management assistance and conservation credit payments through a reverse auction process that considers the potential habitat contribution of the property in combination with the landowner's bid requirements. A reverse auction is a type of auction in which the role of the buyer and seller are reversed, with the primary objective to drive purchase prices downward. Landowners selected to participate will be issued credits for verifiable gopher tortoise habitat and/or agreed upon management activities. These credits can then be voluntarily purchased by federal agencies (e.g., Department of Defense or Department of Transportation), state or county governments, or private companies to offset impacts on sandhill habitat and gopher tortoise populations. These banked credits may also assist the credit holders in meeting their regulatory obligations should the eastern population of the gopher tortoise become federally listed in the future.

The "currency" involved in the habit trading system will be habitat credits. A credit is a unit of trade that places monetary value on habitat preservation or restoration. Credits are sold or traded to offset/mitigate impacts to species and/or species' habitats and will be quantified in acres. However not all acreage is equivalent. The acreage will be weighted based on ecological factors, priority locations, and other relevant variables.

The methodology used to quantify and assign credits is based on scientific principles and regional conservation documents such as the Candidate Conservation Agreement and State Wildlife Action Plan covering the species and habitat. The relationship between credits and debits reflects the amount/value of the compensatory habitat provided to the habitat/species impacted and is expressed as a mitigation or trading ratio. For example a 2:1 trading ratio could represent that 2 acres of sandhill habitat will be restored and preserved through the habit trading system for every 1 acre impacted (e.g., lost, fragmented, or degraded). Rarely will a trading ratio of 1:1 be adequate due to the inherent uncertainty in habit credit trading endeavors and in biological outcomes in general.

There will also be several minimum requirements for landowner eligibility and participation which will help ensure a net conservation benefit. These minimum requirements include:

- Agreement and Management Plan finalized and signed by all parties
- Conservation Easement conveyed
- Endowment secured
- Baseline habitat conditions determined and gopher tortoise population estimated
- Minimum area set at 200 acres of habitable area, with more deemed better. A parcel of at least 10 acres may be considered if adjacent to protected lands of at least 200 acres with no major barriers. 200 acres is minimum acreage to support a viable population. Viable population is defined as 80 tortoises.

The silviculture and economics of longleaf and southern pine timber production are highly compatible with gopher tortoise habitat and the credit trading framework being developed. This is an innovative payment for ecosystem services (PES) approach aimed at developing a voluntary incentive-based framework for a non-listed species and will hopefully generate new income streams for private landowners so their lands remain as well-managed forests, providing valuable ecosystem services and timber products. A holistic habitat focus will better address the primary causes for gopher tortoise population declines while simultaneously addressing the suite of other species who utilize the longleaf system.

A proactive approach, focusing on mitigation before listing occurs provides numerous benefits and increases the likelihood of success. Pre-compliance credits are expected to be dramatically less expensive than compliance credits, hopefully leading to increased acres conserved. Additionally, offset programs that are not directly tied to listed species allow for a higher degree of flexibility in program development and implementation, increasing the attractiveness of the option to both potential buyers and sellers.

Lessons learned from other voluntary offset programs such as carbon sequestration and storage markets are being incorporated into the design of this voluntary habitat offset system. Project leaders are working closely with several similar efforts, the Bay Bank in the Chesapeake Bay region and Willamette Partnership in Oregon, to ensure consistent protocol and methodology development increasing the likelihood of USFWS framework endorsement and project replication.

An advisory group of stakeholders has been formed and will be consulted throughout the entire process. The framework is being designed to incorporate monitoring, evaluation and adaptation protocols. The framework will build upon previous and forthcoming USFWS species and habitat mitigation guidance. Initial credit transactions are anticipated to occur in late 2010.

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